

Rapid assay evaluation to detect different enteropathogens in calves

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Objective of study

The different aetiologies of calf diarrhoea without specific symptoms make the diagnosis and consequently an appropriate treatment and prevention difficult for veterinarians. Conventional diagnostic methods to detect the most important enteropathogens in diarrhoeic calves require time, experience and special laboratory equipment. Therefore rapid assays for detection of bovine coronavirus, rotavirus A, *Cryptosporidium parvum* and *Escherichia coli* F5 have been developed. These rapid immunomigration/immunochromatographic assays have been evaluated in the field.

Material and Methods

Faecal samples of diarrhoeic and healthy neighbour calves from randomly chosen farms in Austria were included in this study.

Results

Rapid tests for the detection of bovine coronavirus and rotavirus showed a high specificity but a relatively low sensitivity compared to RT-PCR. Sensitivity and specificity for detection of *C. parvum* were high. All results of the *E. coli* rapid assay were in accordance with bacteriological cultivation.

Conclusion

The *C. parvum* and *E. coli* F5 test showed an excellent specificity and sensitivity and can be recommended to the practising veterinarian. Tests for evaluation of the examined viruses however need further evaluation.